

**WHAT IS CLAIMED IS:**

1. A method in a data processing system having a program, the method comprising the steps performed by the program of:

asynchronously receiving information about a computer-based system;

calculating an exposure level to failure of the computer-based system based on the received information;

determining a stability of the computer-based system based on the exposure level; and outputting a stability indication responsive to the determined stability.

2. The method according to claim 1, further comprising the step of calculating a confidence level of the exposure level, wherein the stability is determined based on the exposure level and the confidence level.

3. The method according to claim 2, wherein the confidence level is increased each time the exposure level for the computer-based system is calculated and exceeds a predetermined value.

3. The method according to claim 1, wherein a rule engine is used to calculate the exposure level, the rule engine asynchronously receiving the information about the computer-based system as an input, and outputting the exposure level as an output.

4. The method according to claim 1, wherein the rule engine comprises a plurality of rule engines each operating asynchronously; and wherein the stability of the computer-based system is determined based on the exposure levels output from at least one of the rule engines.

5. The method according to claim 4, wherein a first rule engine initiates processing responsive to receiving an input associated output from a second rule engine.

6. The method according to claim 1, wherein the computer-based system is at least one of a data processing system, a component of a data processing system, and a computer program.

7. The method according to claim 1, wherein information about the computer-based system is received by subscribing to the information.

8. The method according to claim 1, wherein the stability information is published to a network connected to the data processing system.

9. The method according to claim 1, wherein the received information comprises at least one of fault information, hardware configuration information, and software configuration information about the computer-based system.

10. A method in a data processing system having a program, the data processing system connected to a plurality of computer-based systems via publish-subscribe network, the method comprising the steps performed by the program of:

- receiving an information about a computer-based system by subscribing to the information;
- determining whether the information identifies a potential problem with the computer-based system;
- calculating an exposure level to failure of the computer-based system responsive to identifying a potential problem;
- calculating a confidence level of the exposure level, the confidence level having an increased value for an increased number of identifications of the potential problem;
- determining a stability of the computer-based system based on the exposure level and the confidence level; and
- publishing a stability indication responsive to the determined stability.

11. A computer-readable medium containing instructions that cause a data processing system having a program to perform a method comprising the steps performed by the program of:

- asynchronously receiving information about a computer-based system;
- calculating an exposure level to failure of the computer-based system based on the received information;
- determining a stability of the computer-based system based on the exposure level; and
- outputting a stability indication responsive to the determined stability.

12. The computer-readable medium according to claim 11, further comprising the step of calculating a confidence level of the exposure level, wherein the stability is determined based on the exposure level and the confidence level.

5 13. The computer-readable medium according to claim 12, wherein the confidence level is increased each time the exposure level for the computer-based system is calculated and exceeds a predetermined value.

10 14. The computer-readable medium according to claim 11, wherein a rule engine is used to calculate the exposure level, the rule engine asynchronously receiving the information about the computer-based system as an input, and outputting the exposure level as an output.

15 15. The computer-readable medium according to claim 11, wherein the rule engine comprises a plurality of rule engines each operating asynchronously; and wherein the stability of the computer-based system is determined based on the exposure levels output from at least one of the rule engines.

20 16. The computer-readable medium according to claim 15, wherein a first rule engine initiates processing responsive to receiving an input associated output from a second rule engine.

25 17. The computer-readable medium according to claim 11, wherein the computer-based system is at least one of a data processing system, a component of a data processing system, and a computer program.

18. The computer-readable medium according to claim 11, wherein information about the computer-based system is received by subscribing to the information.

30 19. The computer-readable medium according to claim 11, wherein the stability information is published to a network connected to the data processing system.

20. The computer-readable medium according to claim 11, wherein the received information comprises at least one of fault information, hardware configuration information, and software configuration information about the computer-based system.

5 21. A computer-readable medium containing instructions that cause a data processing system having a program to perform a method, the data processing system connected to a plurality of computer-based systems via publish-subscribe network, the method comprising the steps performed by the program of:

10 receiving an information about a computer-based system by subscribing to the information;

determining whether the information identifies a potential problem with the computer-based system;

calculating an exposure level to failure of the computer-based system responsive to identifying a potential problem;

15 calculating a confidence level of the exposure level, the confidence level having an increased value for an increased number of identifications of the potential problem;

determining a stability of the computer-based system based on the exposure level and the confidence level; and

publishing a stability indication responsive to the determined stability.

20 22. A data processing system comprising:

25 a memory comprising a program that asynchronously receives information about a computer-based system, calculates an exposure level to failure of the computer-based system based on the received information, determines a stability of the computer-based system based on the exposure level, and outputs a stability indication responsive to the determined stability; and

a processing unit that runs the program.

30 23. The data processing system according to claim 22, wherein the method further comprises the step of calculating a confidence level of the exposure level; and wherein the stability is determined based on the exposure level and the confidence level.

24. The data processing system according to claim 23, wherein the confidence level is increased each time the exposure level for the computer-based system is calculated and exceeds a predetermined value.

5           25. The data processing system according to claim 22, wherein a rule engine is used to calculate the exposure level, the rule engine asynchronously receiving the information about the computer-based system as an input, and outputting the exposure level as an output.

10           26. The data processing system according to claim 22, wherein the rule engine comprises a plurality of rule engines each operating asynchronously; and wherein the stability of the computer-based system is determined based on the exposure levels output from at least one of the rule engines.

15           27. The data processing system according to claim 26, wherein a first rule engine initiates processing responsive to receiving an input associated output from a second rule engine.

20           28. The data processing system according to claim 22, wherein the computer-based system is at least one of a data processing system, a component of a data processing system, and a computer program.

            29. The data processing system according to claim 22, wherein information about the computer-based system is received by subscribing to the information.

25           30. The data processing system according to claim 22, wherein the stability information is published to a network connected to the data processing system.

30           31. The data processing system according to claim 22, wherein the received information comprises at least one of fault information, hardware configuration information, and software configuration information about the computer-based system.

            32. A data processing system comprising:  
means for asynchronously receiving information about a computer-based system;

means for calculating an exposure level to failure of the computer-based system based on the received information;

means for determining a stability of the computer-based system based on the exposure level; and

5 means for outputting a stability indication responsive to the determined stability.